

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 39. (Canceled)

40. (Currently Amended) ~~A~~ An ~~detection~~ apparatus ~~adapted to detect surgical objects~~ an object in a work area, the surgical objects marked by object having a respective resonant tag elements element affixed thereto that produce narrowband return signals in response to energization, the detection apparatus comprising:

a handheld wand having at least three mutually orthogonal transmit/receive antenna elements arranged to individually transmit in respective coordinate directions and to receive any narrowband return signals;

a first electronic circuit coupled to the a transmit/receive antenna elements of the handheld wand and configured adapted to cause each of the transmit/receive antenna elements to emit a varying wideband interrogation signal signals in a round-robin succession to energize said tag element to enable said tag element to transmit at least one un-modulated return signal in response to energization by said varying wideband interrogation signal; and

a second electronic circuit coupled to said the transmit/receive antenna elements of the handheld wand and adapted configured to determine from a receipt of any of the narrowband return signals whether any of the said resonant tag element elements are is present in said the work area from said at least one un-modulated return signal generated in response to said energization by said wideband interrogation signal, wherein a number of transmit and receive cycles of each of the transmit/receive antenna elements are clocked so as to avoid an overlap with a number of transmit and receive cycles of the others ones of the transmit/receive antenna elements.

41. (Currently Amended) The apparatus of claim 40 wherein the first electronic circuit is configured to produce ~~said varying wideband interrogation signal includes a~~ pulse-width varying wideband interrogation signal.

42. (Currently Amended) The apparatus of claim 40 wherein the first electronic circuit is configured to produce ~~said varying wideband interrogation signal includes a~~ voltage varying wideband interrogation signal.

43. (Canceled)

44. (Currently Amended) The An-detection apparatus of claim 40 wherein ~~adapted to detect an object in a work area, the object having a tag element affixed thereto, the apparatus comprising:~~

the a-first electronic circuit causes the ~~coupled to a transmit/receive antenna elements and adapted to emit a varying wideband interrogation signal, the varying wideband interrogation signals signal as having a plurality of pulses adapted to additively build energy in the said resonant tag elements to enable said tag element to transmit, in response to said varying wideband signal, at least one return signal that is an image of a resonance decay of said additively built energy of said tag element;~~ and

the a-second electronic circuit ~~coupled to said transmit/receive antenna and adapted to determine whether said tag element is present in said work area and to discriminate discriminates the said at least one narrowband return signals signal from noise; based on a magnitude of said a resonance decay that commences after a turn-off of at least one of the said pulses.~~

45. (Currently Amended) The detection apparatus of claim 44 wherein ~~said~~ the at least one narrowband return signal is un-modulated.

46. (Currently Amended) The detection apparatus of claim 44 wherein ~~said~~ the at least one narrowband return signal ~~includes a relatively narrowband return signal is~~ centered about a specific, but not predetermined frequency.

47.-49. (Canceled)

50. (Currently Amended) The detection apparatus of claim 44 wherein ~~said~~ the second electronic circuit includes a digital signal processor (DSP) adapted to filter ~~said the~~ at least one narrowband return signal from noise.

51. (Currently Amended) The detection apparatus of claim 44 wherein ~~the~~ the ~~said first and the second electronic circuits and said transmit/receive antenna are part of the a~~ handheld wand hand-held scanning device adapted to detect any surgical objects ~~said object~~ ~~having said~~ marked by the resonant tag elements ~~element affixed thereto in the said-work area,~~ including a surgical area internal to a patient.

52.-58. (Canceled)

59. (Currently Amended) The detection apparatus of claim ~~40~~ 52 wherein ~~said the~~ second electronic circuit includes a Bessel low pass filter adapted to narrow a bandwidth of ~~said the~~ noise.

60. (Canceled)

61. (Canceled)

62. (Currently Amended) The detection apparatus of claim ~~40~~ 52 wherein ~~said the~~ varying wideband interrogation signal has a randomly varied frequency.

63. (Currently Amended) The detection apparatus of claim 62 wherein ~~said~~ the frequency of ~~said-the~~ varying wideband interrogation signal is randomly varied by alteration of a time interval between successive drive pulses.

64. (Currently Amended) The detection apparatus of claim 40 wherein ~~said~~ the wideband interrogation signal is varied by ~~said-the~~ first electronic circuit so as to increase a signal to noise ratio.